

**CMS Midland, Inc., Docket No. QF87-237-000**

**[61,826]**

**[¶61,244]**

**CMS Midland, Inc., Docket No. QF87-237-000**

**Order Granting Application for Certification as a Qualifying Cogeneration Facility**

**(Issued March 12, 1987)**

**Before Commissioners: Martha O. Hesse, Chairman; Anthony G. Sousa, Charles G. Stalon, Charles A. Trabandt and C. M. Naeve.**

On January 23, 1987, CMS Midland, Inc. (CMS or Applicant) of Jackson, Michigan, filed an application for certification of a facility as a qualifying cogeneration facility pursuant to section 292.207 of the Commission's regulations. The Applicant filed supplemental information on January 29, February 3, and February 13, 1987. Notice of the application was published in the *Federal Register* on January 30, 1987.<sup>1</sup>

The proposed topping-cycle cogeneration facility will be located in Midland, Michigan. The primary energy source of the facility will be natural gas. The proposed facility will use some of the cancelled Midland nuclear plant equipment.<sup>2</sup> The Applicant requests certification of two alternative configurations for the facility. Under the first alternative, the Complete Conversion Alternative (CCA), the facility will consist of twelve combustion turbine-generators (81.5 MW net each), twelve heat recovery steam generators (HRSGs), and an extraction/condensing turbine-generator (365.2 MW net). The total net electric power production capacity under the CCA will be 1,343.2 MW. Under the second alternative, the Partial Conversion Alternative (PCA), the facility will consist of eight combustion turbine-generators (81.5 MW net each), eight HRSGs, and an extraction/condensing turbine generator (213.8 MW net). The total net electric power production capacity under the PCA will be 865.8 MW. Installation of the facility is scheduled to commence in 1988.

Under each alternative, exhaust heat recovered from each combustion turbine-generator will be directed to a normally unfired dual-pressure natural circulation HRSG which is capable of supplemental firing.<sup>3</sup> A portion of the high pressure steam (900 psia) will be used in an extraction/condensing turbine-generator to generate additional electric power. The low pressure steam (300 psia) and high pressure steam from the HRSGs and extraction steam will be used by the Dow Chemical Company (Dow) for chemical manufacturing processes and space heating. Consumers Power Company (Consumers) and Dow will purchase electric power from the facility.

The cogeneration facility will be owned by a limited partnership organized under the laws of the State of Michigan. The limited partnership will consist of general partners and limited partners. CMS, a wholly owned subsidiary of Consumers, will be a general

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partner. Consumers is an electric utility for purposes of the Commission's regulations.

Tempco I, Inc. and Tempco II, Inc., wholly owned subsidiaries of Consumers, will also be general partners. The Applicant states that these corporations exist only to facilitate the transfer of partnership interests to other equity investors prior to the initial operation date, i.e., the date on which electricity from the facility is first delivered to any power grid. Rofan Energy Inc. (Rofan), a wholly-owned subsidiary of Dow, will be a limited partner. In addition to receiving steam from the cogeneration facility, a minimum of 60 MW of electricity will be purchased by Dow under a long-term energy agreement.

The Applicant states that the partnership will also include other equity investors as general and/or limited partners. The identity of such partners has not yet been determined. According to the Applicant, the equity interest in the facility held by an electric utility, an electric utility holding company, or any combination thereof, will not exceed 49% at any time on or after the initial operation date. The Applicant requests qualifying status for the facility only for the period following the initial operation date.

On February 13, 1987, NERCO-Pacific Generation Services (NERCO) filed a motion to intervene. NERCO did not take a position in favor of or in opposition to the requested certification. However, NERCO stated that it intended to further investigate, analyze, and evaluate the issues raised, and to file a statement of its position before March 13, 1987. By notice issued on February 18, 1987, NERCO was directed to file any comments it may have on or before March 2, 1987. On February 26, 1987, NERCO filed a notice of withdrawal of its motion to intervene.<sup>4</sup>

### *Discussion*

The ownership criteria governing qualifying cogeneration facilities appear in section 3(18)(B) of the Federal Power Act. 16 U.S.C. §796(18)(1982). Under that section, a qualifying facility must be:

... owned by a person not primarily engaged in the generation or sale of electric power (other than electric power solely from cogeneration facilities or small power production facilities).

The regulation implementing this statutory provision states that:

For purposes of this section, a cogeneration or small power production facility shall be considered to be owned by a person primarily engaged in the generation or sale of electric power, if more than 50 percent of the equity interest in the facility is held by an electric utility or utilities, or by an electric utility holding company. . . .

18 C.F.R. §292.206(b)(1986).

The Commission's regulation thus equates "ownership interest" with "equity interest," but does not define the term "equity interest." However, in *Ultrapower 3*, 27 FERC ¶61,094 (1984), the Commission found that the entitlement to profits, losses, and surplus after return of initial capital contribution, as well as the share of control of the venture, was dispositive in determining the equity interest in a partnership.

We find that the Applicant will meet the ownership criteria of the Commission's regulations after the initial operation date of the facility. The operations of the partnership will be governed by the Midland Cogeneration Venture Limited Partnership Agreement (Agreement). Under the Agreement, all profits and losses of the partnership will be determined at the end of each fiscal year and allocated in accordance with the allocation percentages of all of the partners. The Applicant states that in no event will the aggregate allocation percentage of electric utility partners, their subsidiaries, and or electric utility holding companies exceed 49% at any time after the initial operation date.

Furthermore, the electric utility partners will not have more than 50% control of the partnership. The Agreement provides that the general partners will manage the business affairs of the partnership through a management committee. As a general partner, CMS will participate in the management committee. However, under the terms of the Agreement, electric utility partners will be limited to no more than 50% voting interest after the initial operation date.

The management committee may enter into service contracts with Consumers or one of its subsidiaries for work on the facility. In *Ultrapower 3*, we stated that we would normally presume that such agreements would be at arms length because control of the partnership was shared equally with utility and non-utility interests. 27 FERC at ¶61,184 (1984). We also indicated that we would examine the detail of such arrangements, if the circumstances warranted. *Id.* The Applicant states in its February 13, 1987 supplemental filing that if Consumers (or a subsidiary thereof) performs any contract work with regard to the construction or operation of the facility, it will be paid at competitive, market rates for such work. Thus, we are satisfied that the electric utility partners will have no more than 50% control of the partnership after the initial operation date.

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In *Ultrapower 3*, the Commission also discussed how the initial capital contribution to a partnership is viewed in determining the equity interest:

[w]e regard the entitlement to original capital contribution, before sharing any remaining assets at dissolution, as simply a return of capital and not part of the "equity interest" as that term is used in our regulations. . . . The initial contribution of capital by the partners may be more properly viewed as debt than equity.

We note that this capital contribution conveys no management rights nor does it influence the distribution of profits or gains.

27 FERC at ¶61,184 (1984).

Here, CMS will initially contribute to the capital of the partnership non-cash assets valued at approximately \$134 million and may supplement that amount in the future.<sup>5</sup> Before the initial operation date, Consumers will transfer to the partnership certain non-cash assets which consist of plant and equipment currently located at the facility site (Net Project).<sup>6</sup>

The Applicant states that if the Net Project is transferred in fee, the consideration given by the partnership may be cash or notes. However, some or all of the debt consideration may be in the form of a Special Limited Partnership Interest (Special Interest). If a leasehold interest in the Net Project is transferred, the economics of the lease will be no less favorable to the partnership or to any partner than a sale of such assets. If the Special Interest is created, the holder of the Special Interest would be paid an annual return that would be a fixed percentage of its capital account (Guaranteed Payments). The Guaranteed Payments would be made before any distribution of profits and losses to other partners, but would be subordinate to other debt. Any Guaranteed Payments that cannot be paid because of lack of funds would be accrued for later distribution. A holder of the Special Interest would have no allocation percentage in profits and losses of the partnership. Under the Agreement, upon liquidation of the partnership and after satisfaction of other debts (including the Special Interest), all remaining partnership assets will be distributed in accordance with the relative positive capital account balance of the partners.

The Special Interest provision raises an issue of first impression which was not considered in *Ultrapower 3*. The issue is whether the Special Interest should be viewed as debt or equity. Our analysis of this issue must include an examination of whether the Special Interest affects the control of the facility or is part of the distribution of profits. *See Ultrapower 3* at p. 61,184.

In this case, we believe that the Special Interest is more properly viewed as debt than equity. The Special Interest does not convey any management rights or entitlement to profits. The level of return is fixed and does not fluctuate with the level of any profit. Nor does the level of the annual charge for the use of the capital contribution appear unreasonable given the risk associated with the venture.<sup>7</sup> In addition, upon termination of the partnership, the Special Interest is entitled to the return of the capital contribution, which does not appreciate or grow over the term of the venture. Moreover, the Special Interest appears to be a short term financial instrument, since it is payable by the partnership on March 1, 1991. For the reasons set forth above, we do not view the Special Interest as equity within the meaning of our regulations. Accordingly, we find that no electric utility will have more than a 50% equity interest in the facility after the initial operation date. Thus, Applicant will meet the ownership criteria after the initial operation date.

We further find that the facility meets the technical requirements in our regulations. Section 292.202(c) defines a cogeneration facility as one in which the energy input to the system is applied to electric power production and forms of useful thermal energy through the sequential use of energy.

In the proposed facility, high pressure 900 psia and 600°F steam from HRSGs will flow to the extraction/condensing steamturbine-generator. The tandem-compound steam turbine-generator consists of an opposed flow high-pressure (HP) section, an opposed flow low-pressure (LP) section and a synchronous generator on a common shaft. Steam is extracted only from the HP section. After the extraction point, steam which is not extracted flows through the remaining HP section exhausting to a moisture separator before entering the LP section where additional electric power is produced.

In *Texas Industries, Inc.*, 29 FERC ¶61,051 (1984), the Commission held that the sequential use requirement is satisfied in the case of an extraction turbine because the rule requires only that the portion of turbine steam flow used for a thermal purpose be previously used for generation, not that all steam providing generation flow to a thermal purpose. The Commission found that the extraction turbine complied with the sequential use requirement, notwithstanding the fact that there was additional generation by steam downstream of the extraction point

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which passed to the condenser without being extracted for a heating purpose. Here, we find that the facility satisfies the sequential use requirement.

We further find that both of the alternative configurations which the Applicant seeks to certify meet the other requirements set forth in section 292.205(a) of the Commission's regulations. 18 C.F.R. §292.205(a)(1986).

Under the PCA, eight combustion turbine-generators, eight HRSGs, and an extraction/condensing steam turbine will produce

a total useful electric power output of  $6.12 \times 10^9$  kWh/yr at 80% capacity factor. The net useful thermal energy output will be  $5.17 \times 10^{12}$  Btu/yr at 100% capacity factor.<sup>8</sup> This thermal energy in the form of 10° F superheated steam at 190 psia will be furnished to Dow continuously for chemical manufacturing and space heating. Dow will use a 6.2 MW back pressure turbine-generator<sup>9</sup> to reduce a portion of this process steam to a lower pressure of 43 psia prior to application. The operating standard and the efficiency standard for the PCA will be 19.8% and 47.0%, respectively. Therefore, the PCA meets the requirements established in section 292.205(a) of the Commission's regulations.

The Applicant states that the development of the CCA may be accomplished in two phases. The first phase would be similar to the PCA. In the second phase, four additional combustion turbine-generators and associated HRSGs will be added. The total useful electric power output will be  $9.47 \times 10^9$  kWh/yr, whereas the net useful thermal energy output will be the same as that produced in the PCA, i.e.,  $5.17 \times 10^{12}$  Btu/yr. As in the PCA, this thermal energy will be delivered to Dow continuously in the form of 10° F superheated steam at 190 psia. The operating and efficiency standards for the CCA will be 13.79% and 46.97%, respectively. Thus, the CCA meets the requirements established in section 292.205(a) of our regulations.

For the reasons set forth above, we shall grant certification of both of the alternative configurations for the facility as described in the application. Our certification shall become effective after the initial operation date of the facility.

*The Commission orders:*

(A) The application for certification of qualifying status filed on January 23, 1987, and completed on February 13, 1987, by CMS Midland, Inc. pursuant to section 292.207 of the Commission's regulations and section 3(18)(B) of the Federal Power Act, as amended by section 201 of the Public Utility Regulatory Policies Act of 1978, is hereby granted, effective after the initial operation date of the facility, provided that the facility operates in the manner described in the application.<sup>10</sup>

(B) Docket No. QF87-237-000 is hereby terminated.

**-- Footnotes --**

<sup>1</sup> 52 Fed. Reg. 3044 (1987).

<sup>2</sup> A two-unit Midland nuclear plant was initially proposed by the Consumers Power Company in 1967 for operation in 1973 and 1974. In 1984, when the nuclear plant's construction was 85 percent complete, the project was cancelled.

<sup>3</sup> When natural gas is used for supplemental firing, only that portion in which the energy therefrom is used sequentially (expanded through either the steam turbine-generator or the back-pressure turbine-generator) qualifies for exemption from incremental pricing under section 292.205(c)(4) of our regulations. 18 C.F.R. §292.205(c)(4) (1986).

<sup>4</sup> Under Rule 216 of the Commission's Rules of Practice and Procedure, 18 C.F.R. §385.216 (1986), the notice of withdrawal will become effective 15 days from the filing of such notice (March 13, 1987), if no opposition to the withdrawal is filed within that period.

<sup>5</sup> This capital contribution is similar to the contribution in *Ultrapower 3*, and thus may be viewed as debt rather than equity.

<sup>6</sup> The Net Project, together with the non-cash assets contributed by the Applicant, have a book value of \$1.5 billion.

<sup>7</sup> Since the interest rate of the Special Interest was fixed prior to transfer of control, this interest rate is of concern. A rate above the market rate could be construed as profit.

<sup>8</sup> The difference in capacity factors between the power and thermal outputs is attributable to supplemental firing. The energy used for supplemental firing is included in the calculations of the operating and efficiency standards.

<sup>9</sup> The Applicant does not request certification for this electric power production capacity.

<sup>10</sup> Certification as a qualifying facility serves only to establish eligibility for benefits provided by the Public Utility Regulatory Policies Act of 1978, as implemented by the Commission's regulations, 18 C.F.R. Part 292. It does not relieve a facility of any other requirements of local, State or Federal law, including those regarding siting, construction, operation, licensing and

pollution abatement. Certification does not establish any property rights, resolve competing claims for a site, or authorize construction.